

Annex to:

EFSA NDA Panel, 2022. Scientific Opinion on the Tolerable Upper Intake Level for dietary sugars. EFSA Journal 2022;20(2):7074. doi:10.2903/j.efsa.2022.7074

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Annex G — Additional information requested at full text screening and data extraction and decisions taken for the assessment



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1. Intervention studies on metabolic diseases

Publication	Information requested from the authors	Authors' reply and decision taken
Bruun et al. (2015)	Uric acid concentrations at the end of the intervention as absolute values per arm.	No response. Post-intervention absolute values were calculated from the percentage change values. Study was included in the assessment.
Lowndes et al. (2014)	Data on SBP and DBP per intervention arm.	No response. Study excluded from the assessment for this endpoint only (SBP/DBP).
Maersk et al. (2012); Bruun et al. (2015); Engel et al. (2018)	Clarification on the number of participants considered in each publication Clarification on whether spread values for post-intervention results are mistakenly reported as SEM instead of SDs as for pre-intervention.	 Information on flow of participants provided by the authors. Authors confirmed there was an error in the paper and SEM are reported for post-intervention results. Authors have re-published results in the journal and data have been used in the assessment.
Majid et al. (2013)	Description of the method used to measure body weight, pre- and post-intervention results for body weight, information on background diet and physical activity levels. Clarification of results reported in Table 1 which do not match with those in Table 2.	No response. Study excluded from the assessment for this endpoint only (body weight).
Mark et al. (2014)	Women randomised to consume diets high and low in advanced glycation end products (AGEs), and within each group, randomised to consume either glucose or fructose beverages. Results provided only by AGEs group in the publication. Authors requested to provide results by type of sugar.	Individual data provided by the authors. Estimates by sugar type (fructose and glucose) were calculated and used in the assessment.
Silbernagel et al. (2011)	Values for glucose and insulin concentrations at 120' during the OGTT for the glucose and fructose intervention groups not reported in the publication.	No response. Study excluded from the assessment for this endpoint only (glucose and insulin concentrations at 120').
Tonstad et al. (2006)	Data on blood pressure, body weight, blood lipids, fasting glucose, and fasting insulin. Only the significance of the results was reported in the publication.	Authors replied that they no longer have access to the data. Study excluded at full text screening.

Abbreviations: AGEs, advanced glycation end products; DBP, diastolic blood pressure; OGTT, oral glucose tolerance test; SBP, systolic blood pressure; SD, standard deviation; SEM, standard error mean.



2. Observational studies on metabolic diseases and pregnancy endpoints

Cohort, publication	Information requested from the authors	Authors' reply and decision taken			
F==::0000011	Original search				
ALSPAC Avon Longitudinal Study of Parents and Children Ambrosini et al.	Data on the relationship between free sugars intake and fat mass index (free sugars were reported by dietary patterns z-scores, but not used as independent variable in the publication).	No data received. Study excluded from the assessment.			
ALSPAC Avon Longitudinal Study of Parents and Children Anderson et al. (2015)	Clarification on whether "sugars" refers to total or added sugars. Data on quantitative sugar intakes at 3, 7 and 13 y.	No response. It was assumed that "sugars" refers to total sugars as in other publications from the same cohort. Absolute sugar intakes were not reported (as indicated in evidence table) but study included because results were given per each 10g/day increase in total sugars intake.			
ALSPAC Avon Longitudinal Study of Parents and Children Johnson et al. (2007); Bigornia et al. (2015)	Baseline SSBs consumption. Absolute values for indices of adiposity at each time point.	Received mean baseline SSBs intake. Used median intakes (IQR) reported in the publication instead. Absolute values for indices of adiposity at each time point not provided: used β coefficients (95% CI) for changes as reported in the publication			
ALSPAC Avon Longitudinal Study of Parents and Children Cowin and	Clarification on whether "sugars" refers to total or added sugars. Data on quantitative sugar intakes.	Confirmation exposure is total sugars. Data on baseline sugar intakes provided by the authors and used in evidence table.			
ARIC Atherosclerosis Risk in Communities Study Bomback et al. (2010)	The number of participants and incident cases of hyperuricaemia per category of soda intake (only total incident cases reported).	Authors responded they no longer have access to the data. The study was nevertheless included in the assessment.			
BMES Blue Mountain Eyes Study	Clarification on whether prevalent cases of CVD were excluded at baseline.	No response received. Study excluded from the assessment.			
Iff et al. (2014) BSCC Bogota School Children Cohort Shroff et al. (2014)	The serving size of soda that was used in the FFQ.	Authors provided average serving size used in the FFQ. However, study excluded from the assessment because annual changes in anthropometric measurements (BMI, skinfold thickness, WC) were not standardised by age in this population of children 5-12 years of age.			
BWHS Black Women's Health Study	The IRR (95% CI) across categories of SSSD consumption in the most adjusted multivariate model which included BMI. Only results for the	Data not provided. Extracted and used only data available in the publication.			



T = .	F	7
Palmer et al.	highest category of intake is reported in the	
(2008)	text.	Authors design to the Court of
CARDIA	Clarification on whether "juice" includes only	Authors clarified that fruit juice refers to
Coronary Artery	100% fruit juice or a combination of sugar-	100% fruit juice. Could not provide
Risk	sweetened juice and 100% fruit juice.	categorical analyses for the exposures.
Development in	Requested categorical analyses of the exposures	Confirmed the intake unit of increment in
Young Adults	100% fruit juice and SSBs.	continuous analyses was 100 kcal/day.
	Clarification on the intake unit of increment	
Duffey et al.	corresponding to the RR for the continuous	
(2010)	analyses.	
DDHP	The longitudinal analyses for change in BMI z-	No response. Only results presented in
Detroit Dental	scores which was regressed on change in	the publication were included in the
Health Project	beverage intakes (only direction of association	assessment (longitudinal associations for
Line at al. (2000)	reported in the publication).	baseline beverage intake and incidence of
Lim et al. (2009)	The results for the longitudinal associations	overweight).
	between changes in beverage intake and	
	incidence of overweight (only direction of the	
	association reported in the publication).	
	The logistic regression analyses for incidence of	
	obesity using baseline beverage intakes as well	
	as change in beverage intakes as predictors	
	(only direction of the association reported in the publication).	
DONALD	1 /	Information requested received from the
Dortmund	Clarification on how sugar intake was expressed in the model and whether (and how) TEI was	authors.
Nutritional and	included in the analysis.	autiois.
Anthropometric	included in the analysis.	
Longitudinally		
Designed Study		
Designed study		
Goletzke et al.		
(2013)b		
Herbst et al.		
(2011)		
ELEMENT	Clarification on whether cases of obesity and	Information requested received. Authors
Early Life	abdominal obesity at age 12 months (baseline)	clarified prevalent cases of obesity and
Exposure in	were excluded from the analysis.	abdominal obesity at baseline were
Mexico to	The mean intake ranges for each tertile in	excluded. Mean intakes in ml/d could not
Environmental	mL/day for Table 3. Also, in relation to Table 3,	be provided as exposure is cumulative
Toxicants	the person-years of follow-up and the number of	intake between 1 and 5 years of age.
	incident cases per category of SSBs intake, both	Analysis did not allow for estimation of
Cantoral et al.	for obesity and for abdominal obesity?	person-years. Number of cases per
(2015)	Clarification on whether anthropometric	category of SSBs were provided and
	variables of the children were taken between 1	incorporated in the assessment.
	and 5 years of age (during which the intake of	
	SSBs was assessed), and whether cases of	
	obesity and abdominal obesity happening at that	
EDIC	time were excluded from the analysis.	Authors confirmed "ivise" combines
EPIC-	Clarify whether the exposure "juice" that is listed in Table 2 refers to 100% fruit juice or whether	Authors confirmed "juice" combines
Diogenes	includes also sugar-sweetened fruit juices/drinks	100% fruit and vegetable juices,
European Prospective	and/or vegetable juices.	concentrates and nectars. Exposure is classified as total fruit juice in the
Investigation	ana, or vegetable juices.	assessment. Authors clarified that soft
into Cancer and	Clarify what soft drinks includes.	drinks combines both sugar- and
Nutrition-Diet,	Claimy What Soft diffind includes.	artificially sweetened soft drinks.
Obesity and		However, this exposure is kept in the
Genes project		assessment because results are given per
Genes project		each 100kcal/day increase in intake, and
Romaguera et		it is assumed that the contribution to
al. (2011)		energy comes predominantly from SSBs.
EPIC-InterAct	Hazard ratios for incidence of T2DM for each	The authors shared the requested data,
European	individual country per category of intake (as	which was incorporated into the
•		assessment and in the dose-response
Prospective	reported in Table 2 of the publication for pooled	i assessinent and in the dose-response



Investigation into Cancer and Nutrition-Diet, InterAct cohort InterAct consortium (2013)	analysis) for both SSBs and fruit juices. Data requested per category of intake included the number of subjects analysed, the number of cases, median intake, person-years, age, proportion of females/males and the hazard ratio estimates and related 95% confidence intervals from same models as reported in Table 2 of the publication.	meta-regression analysis for SSBs vs T2DM and for fruit juices vs T2DM.
EPIC-Norfolk European Prospective Investigation into Cancer and Nutrition-Norfolk cohort Ahmadi-Abhari et al. (2014)	Numerical values for the HR (95%CI) illustrated graphically in Figure 2, for the categorical analysis using the residual method (partly reported in the publication) for the exposures total sugars, sucrose, free glucose, free fructose, lactose and maltose. Information on whether the continuous analyses was run using the nutrient density method (Figure 1).	No response received. Data extracted from Figure 2 for categorical analyses on the relationship between the consumption of sucrose, free glucose and free fructose in relation to risk of type 2 diabetes mellitus. Assumed that the continuous analysis was run using the nutrient density method.
EPICOR European Prospective Investigation into Cancer and Nutrition-Italian cohort Sieri et al. (2010); Sieri et al. (2013)	The number of subjects and person-years per quartile of total sugars intake. The SD for total sugars intake in the whole cohort.	Data requested was provided by the authors and used in the assessment.
EPIC-Utrecht European Prospective Investigation into Cancer and Nutrition-Utrecht cohort Beulens et al. (2007)	The number of cases (and person-years, if available) per quartile of mono- and disaccharides intake. The mean daily intake of mono- and disaccharides per quartile. Only if possible, same data and analysis separately for CHD and stroke.	Data requested received. Data on incidence of stroke was included in the assessment. The additional analysis on CHD incidence, as a separate endpoint, was not included in the assessment because the EPIC-Utrecht cohort was also included in the larger EPIC-Multicentre study for the same exposure and endpoint.
EYHS-DK Early Childhood Longitudinal Study – Danish cohort Olsen et al. (2012); Zheng et al. (2015)b Zheng et al. (2014)	Confirmation that the exposure assessment was limited to one 24-h recall (i.e., covering one day) and one parent-assisted food record as reported in the publication. Unclear whether both refer to the same day.	No response. Studies excluded from the assessment.
Framingham-Offspring Framingham-Offspring cohort Pase et al. (2017)	The number of cases of total and ischemic stroke and person-years (or number of subjects) per category of intake of total sugary beverages and of sugar-sweetened soft drinks.	No data received from the authors. Study included in the assessment (evidence tables) but could not be considered for pooled effect estimates in data analysis.
Girona Funtikova et al. (2015)	Number of subjects included in the analysis per category of soft drinks and juice intake and the number of incident cases of abdominal obesity per category of intake.	No response. The study was included in the assessment but could not be considered for pooled effect estimates or dose-response meta-analyses because of the missing information.



GUTS	Clarification on what the exposure "inice"	Authors clarified that the exposure
Growing Up	Clarification on what the exposure "juice" includes and on the exposure unit that was used	included 100% fruit juice only. Authors
Today Study	in the model for juices. Clarification on the	clarified serving size.
Today Study	serving size for juices.	Clarified Serving Size.
Field et al.	serving size for juices.	
(2003)		
GUTS-II	Clarification on the serving size for regular soda.	Authors clarified serving size.
Growing Up	Clarification on the serving size for regular soua.	Authors clarified serving size.
Today Study-II		
Today Study-11		
Field et al.		
(2014)	Casas/navasn vasus of absorbation now sates and	Data vacuated avaided by the sythese
HPFS, NHS,	Cases/person years of observation per category	Data requested provided by the authors.
NHSII	of fruit juice intake and HRs (95%CI) of type 2	Data provided used in the assessment.
Munald at al	diabetes mellitus across categories of fruit juice	
Muraki et al.	intake by cohort.	
(2013)	The coming size used for the analysis of the	Authors no longer had access to the data
HPFS, NHS,	The serving size used for the analysis of the	Authors no longer had access to the data
NHSII	relationship between SSBs and fruit juices and	and could not fully confirm serving size.
Dam at al. (2012)	body weight.	Serving size was extracted from a
Pan et al. (2013)	Clarification on the definition of the exposure	separate publication reporting on the
	"fruit juices"; does this include only 100% fruit	same cohorts. Authors confirmed fruit
	juices or also includes sugar-sweetened fruit	juices refers to 100% fruit juice only.
1DUC	juices?	No versional Tefamoration
JPHC	Clarification on whether serving size was part of	No response received. Information
Japan Public	the question in the FFQ or not (was this a FFQ	gathered from other publications
Health centre-	or SFFQ?). The size of standard servings for soft	reporting on the methodology used for
based Study	drinks and 100% fruit juice used to convert data	this study (serving size = 250mL).
Cohort	from the FFQ into nutrient intakes.	
Cabalcat al		
Eshak et al.		
(2013)	Chaiff and in an arthur annual and annual a	A. the area of Course of the table a conductor
KoGES	Clarification on whether prevalent cases of	Authors confirmed that the analysis
Korean Genome	abdominal obesity and high blood lipids at	excluded prevalent cases at baseline.
and	baseline were excluded from the analysis.	Study included in the assessment.
Epidemiology		
Study		
Vana and V:		
Kang and Kim		
(2017)	Clariff and the state of the contract of the state of the	No construction of the construction
MDCS	Clarification on the type of beverages included	No response received. However,
Malmo Diet	under "SSBs".	clarification on the definition of SSBs
Cancer Study	Median intake of SSBs for the whole population	received from other authors (Sonestedt
Crissen et el	Clarify whether, In Table 2, cases/person-years	et al., 2012) for the same cohort, along
Ericson et al.	provided in the third row refer to tertiles of all	with unpublished data on a longer follow-
(2018)	dietary variables or only to tertiles of diet-risk	up for the same exposure and endpoint,
	scores. In the latter case, please provide	which was used for the assessment.
MDCC	cases/person-years per tertile of SSBs intake.	Data received for a lenger fellow or fer
MDCS Malmo Diet	Analyses by level of sucrose intake (% of	Data received for a longer follow-up, for
	energy) in relation to the incidence of type 2	the exposures added sugars (%E),
Cancer Study	diabetes and BMI for the whole study population	sucrose (%E) and SSBs (g/d), for whole
Conoctodt at al	(only by GIPR genotype provided in the	study population. Clarification on what
Sonestedt et al.	publication).	SSBs includes. Data received was used in
(2012)		evidence tables for the relationship
		between these exposures and risk of
MDCC	Clarification on whather Witten II	T2DM.
MDCS	Clarification on whether "juice" includes only	Authors clarified that "juice" refers to
Malmo Diet	100% fruit juice or a combination of sugar-	100% fruit juice.
Cancer Study	sweetened juice and 100% fruit juice.	
Concetedt at al		
Sonestedt et al.		
(2015)		



MoBA Norwegian Mother and Child Cohort Study	Access to supplementary material, which was not accessible on the journal website.	Authors provided the supplementary material. Information was extracted from this material.
Grundt et al. (2017)		
Mr and Ms OS Mr and Ms OS project of Hong Kong	Clarification on the definition of free sugars used in the study. Results for free sugars and cardiovascular disease mortality (available to the authors but not reported in the publication).	Authors clarified that free sugars were as defined by WHO. Results for free sugars and cardiovascular disease mortality were provided and incorporated into the assessment.
Liu et al. (2018)	01.15	
MTC Mexican Teachers' Cohort	Clarification on the serving size for SSBs.	Authors clarified serving size.
Stern et al. (2017)		
NHS Nurses Health Study	The mean intake of sucrose, fructose and lactose per energy-adjusted quintile of these nutrients. Number of cases and person-years per energy-	No response received the first-time authors were contacted on 09/19. Contacted again on 02/21, authors indicated willingness to share
Liu et al. (2000)	adjusted quintile of these nutrients	unpublished data for a longer follow-up. Data not received before WG agreed on closure of database on 17/03/2021. Study excluded from the assessment for this endpoint (incidence of CHD).
NHSII Nurses Health Study-II	To confirm the number of case subjects per category of SSBs consumption which did not add up with total number of cases.	No response received. Deduced it was an editorial mistake for the first consumption category from the results for the other beverages. Total cases confirmed correct
Chen et al. (2009)b		from another publication reporting on the same sample.
NHSII	Authors were contacted as it was not possible to	No response received. Study included in
Nurses Health Study-II	find the Supplementary Table 1 in the Supplementary data provided in the Journal website.	the assessment without access to this supplementary material.
Chen et al. (2012)		
NIDDK National Institutes of Diabetes and Digestive and Kidney Diseases	In respect to energy consumed from sodas and weight change, the adjusted analysis with the results expressed as mean difference in weight gain per exposure unit, ideally with the associated 95% CI or SE.	No response. Study excluded at full text screening.
Bundrick et al. (2014)		
NIH-AARP National Institutes of Health-American Association for Retired Persons Diet and Health Study	The number of cases and person-years per quintile of total and added sugars, total and added fructose, and total and added sucrose intake for the CVD mortality outcome.	Data requested received and incorporated into the assessment.
Tasevska et al. (2014)		



Northampton	Detailed description of regression analysis and	Authors were unable to locate the details
Northampton	absolute values for the analysis of sugar intake	of the analysis and the original data files
Langley-Evans and Langley- Evans (2003)	during pregnancy and neonate birthweight.	had become corrupted. Study excluded from the assessment.
PHI Planet Health Intervention	Clarification on the serving size for SSBs.	Authors clarified serving size.
Ludwig et al. (2001)		
SCES Sidney Childhood Eye Study Gopinath et al. (2012)	The baseline intake for added sugars and fructose in the analysis of blood pressure	No response. Baseline intake is not reported in evidence tables. Study included in the assessment for these exposures because effect estimates are given for a defined intake (per each SD increase in intake, corresponding to 27.63g/d of added sugars and 14.19g/d
		of fructose).
SCES Sidney Childhood Eye Study Gopinath et al.	The baseline intake for fructose in the analysis of body weight (females).	No response. Baseline intake is not reported in evidence tables. Study included in the assessment because effect estimates are given for a defined intake (per each SD increase in intake, corresponding to 14.2g/d of fructose).
(2013) SCHS	The number of cases of ischemic heart diseases	Data requested received and
Singapore Chinese Health Study	and person-years per quintile of intake of mono- and disaccharides for men and women.	incorporated into the assessment.
Rebello et al. (2014)		
SUN Seguimiento Universidad de Navarra Fresan et al. (2017)	Values for the hazard ratios (95%CI) for T2DM incidence according to "fresh juice" and "all type of juice", per category of intake, as illustrated in Figure 1. The number of incident cases per category of intake.	No response when first requesting the data. Sent another request after the public consultation. Data received from the authors for "all type of juice". The results were incorporated in the assessment on FJs and T2DM.
TLGS Teheran Lipid and Glucose Study Mirmiran et al.	The number of individuals (or person-years) and cases per quartile of SSBs for each endpoint depicted in Table 2.	No response received. Indicated in evidence tables that this information was not available.
(2015)		
WAPCS Western Australia Pregnancy Cohort (Reine) Study Ambrosini et al. (2013)	Clarification on total number of boys and girls included in the analysis for incidence of overweight or obesity and whether prevalent cases at baseline were excluded. The number of subjects and the number of incident cases (if that was the case) for overweight/obesity per tertiles of SSBs intake for girls and boys (Table 3). The number of subjects per tertiles of SSBs intake for girls and boys for all the outcomes depicted in Table 4.	Information requested received. Authors clarified that prevalent cases of obesity and abdominal obesity at baseline were not excluded from the analysis. As per protocol, the paper has been excluded for these two endpoints, but included for body weight and waist circumferences as continuous endpoints. The number of participants per category of SSBs intake at baseline and follow-up was also provided, but not the number of subjects changing tertile during follow-up, which is the independent variable used in the analysis. The information was not used in evidence tables.



WHI Women's Health Initiative Tasevska et al.	Study reports intake of total sugars in g/1000kcal, authors were asked to provide, if possible, intake of total sugars in g/day.	Data requested received and incorporated into the assessment.
(2018)		
WHI Women's Health Initiative Huang et al. (2017)	To provide the same information displayed in Table 2 for artificially-sweetened beverages but for SSBs (i.e., number of subjects per category of intake, number of cases and the results of the crude model).	No response received. Results from the most-adjusted model reported in the text of the publication were used in the assessment. Number of subjects, and cases, per category of SSBs intake indicated as not reported in evidence
		tables.
WHS Women's Health Study	Median intake of total sugars, free fructose, free glucose and lactose per quintiles of intake of the respective sugar category.	Authors provided the data requested. Median intakes reported in evidence tables.
Janket et al. (2003)		
WIC Special Supplemental Nutrition Program for Women, Infants, and Children Faith et al. (2006)	Clarification on whether the exposure "juice" that is listed in Table 4 refers to 100% fruit juice or whether this also includes sugar-sweetened fruit juices/drinks.	No response. Study excluded from the assessment.
	Search update	
CTS California Teachers Study Pacheco et al. (2020)	For the categorical analysis of sugar-sweetened beverages (SSBs), the mean/median intake in ml/d (or fl. ounces) per category of SSBs intake (Table 2). Clarification on how the categories of intake for SSBs were collapsed, as they include different serving sizes for sugar-sweetened soft drinks (12 fl. oz) and sweetened bottled water or tea or fruit drink (8 fl. oz). Clarification on the serving size used in the analysis for SSB (composite exposure).	No response. Mean intakes of SSBs per category of intake were extracted from Table 1 in the publication and were used in the assessment.
EPIC- Multicentre European Prospective Investigation into Cancer and Nutrition- Multicentre Mullee et al. (2019)	In relation to sugar-sweetened soft drinks and ischemic heart disease and cerebrovascular diseases, the number of subjects (and person-years if available) and the number of cases/events per category of intake. The mean intake of sugar-sweetened soft drinks per category of intake (both Tables 3 and 4).	Authors provided all data requested. Data extracted in evidence tables and incorporated into the assessment.
EPIC- Multicentre European Prospective Investigation into Cancer and Nutrition- Multicentre Sieri et al. (2020)	The median intakes of total sugars per quintile of intake (Table 4). Clarification on how a positive association between the intake of total sugars and incidence of coronary heart disease could be observed when the number of incident cases decreased across increasing quintiles of intake. The number of participants included for Italy and the Netherlands and the centres included for these respective countries.	Authors provided all data requested. Median intakes of total sugars extracted in evidence tables. Authors clarified that the unexpected results can be explained by the adjustment for stratification variables (age, sex, centre). Authors confirmed that the centres included from Italy and the Netherlands were the same included in other publications reporting on the same exposure-endpoint relationship. The study was included in the assessment.



	1	1
HPP Harvard Pooling Project of Diet and Coronary Disease Keller et al. (2020)	For the categorical analysis of sugar-sweetened beverages and coronary events (supplementary Table S3), the number of cases/events per category of intake and, if available, the mean/median intake per category of SSBs intake. Clarification on the number of participants included in the categorical and continuous analysis of SSBs in relation to coronary events (reported in Tables S3 and in Table 2), which do not correspond to the information reported in the text (section on methods).	Data not provided. Incident cases and mean/median intakes per category of SSBs indicated as not reported in evidence tables. The number of participants reported in the publication, in the respective tables presenting results for coronary events either when the exposure was assessed as continuous (Table 2) or as categorical variable (Table S3), were used in the assessment.
REGARDS Reasons for Geographic and Racial Differences in Stroke study Collin et al. (2019)	The categorical analysis of sugar-sweetened beverages (alone, without 100% FJ) for CHD mortality and incident number of cases/events per category of intake, as per Table 3 for "sugary" beverages (the combination of SSBs and 100% FJ). The number of subjects per category of intake for the exposure SSBs.	Authors provided analysis on the exposure SSBs. The number of subjects per category of intake was not received (indicated as not reported in evidence tables). Data received extracted in evidence tables and used in the assessment.
UK-Biobank Ho et al. (2020)	1. The cox proportional hazards regression output (HRs and CI) for incident CVD per quintile/category of sugar intake 2. Number of cases of incident CVD and personyears (or number of subjects) per quintile/category of sugar intake 3. Daily intake of sugar per quintile/category 4. results for the crude model 5. number of participants who had 1, 2, 3, 4 or 5 24-h recall questionnaires for those followed up in the analysis of total sugar and CVD mortality.	Authors provided all data requested. Study excluded from the assessment because 37% of participants had only completed one of five dietary questionnaires (exposure estimated from average if the five questionnaires).

Abbreviations: BMI, body mass index; CI, confidence interval; CHD, coronary heart disease; CVD, cardiovascular diseases; GIPR, gastric inhibitory polypeptide receptor; FFQ, food frequency questionnaire; FJ, fruit juice; HR, hazard ratio; IRR, incidence rate ratio; IQR, interquartile range; RR, rate ratio; SE, standard error; SFFQ, semiquantitative food frequency questionnaire; SSBs, sugar-sweetened beverages; SSSDs, sugar-sweetened soft drinks; T2DM, type 2 diabetes mellitus; TEI, total energy intake; WC, waist circumference.



3. Observational studies on dental caries

3. Observational studies on dental caries			
Cohort, publication	Information requested from the authors	Authors' reply and decision taken	
BTT Birth-to-Ten Study MacKeown et al. (2000)	 Individual data on: Added sugars intake (in g/d) at 1 and 5 years of age for the longitudinal sample (n=259). Dental caries outcomes for the longitudinal sample. If not possible, to provide results for the longitudinal analysis on total sugars intake and dental caries 	No response. Study excluded from the assessment.	
Campain et al. (2003)	endpoints Individual data on: 1. Sugar intake (in g/day) for each participant 2. DMFS (or preferably DMFT) increment 3. Possible confounders, such as use of toothpaste, socioeconomic status, water fluoridation. If not possible, to provide data on total sugar intakes and risk of dental caries (results only reported for categories of food with "high", "medium" or "low" sugars and starch content, but sugar intakes are not reported in the publication or used as independent variable in the	No response. Study excluded from the assessment.	
DDHP Detroit Dental Health Project	analyses). Individual data on: 1. Intake of total sugars and of sugars from milk, 100% juice and soft drinks in g/d. 2. Caries increment.	No response. Study excluded from the assessment.	
Lim et al. (2008)	If not possible, adjusted caries increment per e.g. tertile or quartile of total sugars and sugars intake in g/d from milk, 100% juice and soft drinks (i.e. as reported for total sugars in the paper but used as independent variables rather than as adjustment variables for patterns of beverage intake).		
Finnish Bernabé et al. (2016)	Individual data on sugars intake (g/day) and DMFT. If not possible: 1. Clarification on what "sugars" refers to in the paper 2. If possible, to derive a level of sugars intake that is associated to zero caries increment during follow-up 3. If data on root caries are available, to provide an analysis with confounders adjustment on the relationship between sugars intake and root caries increment in adults >47 y of age, and calculate the amount of sugars intake that is associated to zero root caries increment	Authors responded that individual data cannot be shared with third parties. Authors confirmed that the exposure is total sugars. Authors confirmed that the association between the exposure and the endpoint was linear, and that a level of total sugars intake that is associated with zero caries increment could not be identified. Very few individuals had an intake <5%E in the sample. Authors confirmed that caries data was not recorded by location, only by tooth, and therefore it was not possible to separate crown from root caries. Study included in the assessment using data available in the publication.	
IFS Iowa Fluoride Study Chankanka et al. (2011)	Individual data on: 1. Sugars intake (in g/d) or raw data from the dietary assessment from which a quantitative daily intake of sugars (total and/or added and/or free sugars) could be calculated (for the whole diet and possibly by source). 2. Caries outcomes. Caries transition for specific teeth as in the article, but possibly divided into cavitated and non-cavitated lesions, rather than as a combined outcome.	Data received for total sugars, SSBs and 100%FJ. Permission of the data owner institution to perform analysis on individual data was also granted. EFSA conducted analysis on the individual data, and this was included in the assessment.	



	3 Confounding factors assessed	
Pelotas Peres et al. (2016)	 3. Confounding factors assessed. Individual data on: Sugars intake (in g/d) at 15 years or raw data regarding the FFQ from which a quantitative intake of sugars (total and/or added and/or free sugars) could be calculated (frequency of consumption + serving size). DMFT increment between ages 15 and 18 years (or individual data on DMFT at 15 and 18 years from 	Individual data received but could not be used. Subjects were stratified into groups of sugar intake but the amount of sugar intake was not reported. Study excluded from the assessment.
Rodrigues et al. (1999) Rodrigues and Sheiham (2000)	which this could be calculated) Individual data on: 1. Total sugar intake (in g/day) 2. One-year DMFT increment 3. Possible confounders, such as use of toothpaste, socioeconomic status, water fluoridation. If not possible, to provide an analysis using total sugars as independent variable on dental caries endpoints (only sugars intake at the nursery reported in the publication) Individual data on:	No response. Study excluded from the assessment. Authors responded that the data
and Gustafsson (1986)	1. Sucrose intake (in g/day) and total sugars intake 2. Caries outcomes at 8 years (possibly separate data on dmfs and DMFS) and at 13 years. If not possible, to provide an analysis using sucrose and total sugars as independent variables on caries endpoints (only reported in the publication as intakes by caries increment groups)	requested could not be provided as it was destroyed. Study excluded from the assessment.
STRIP-2 Special Turku Coronary Risk Factor Intervention Project Karjalainen et al. (2001); Karjalainen et al. (2015)	 Individual data on: Dmft (dentine) and dmft (dentine and enamel) caries at 3 and 6 years of age D3MFT (i.e. cavity level) at 12 and 16 years Sucrose intake in g/day at 3 and 12 years of age Data on possible confounders 	Authors provided all data requested. Permission of the data owner institution for EFSA to perform the data analyses on the data provided was also granted. EFSA conducted analysis on the individual data, and this was included in the assessment.
VA-DLS Department of Veterans Affairs- Dental Longitudinal Study Kaye et al. (2015)	 Individual data on: Total sugars intake in g/d, intake of sugarsweetened beverages and on root caries increment. If individual data cannot be shared, adjusted root caries increment per e.g. quartile of sugars intake in g/d. The data collected on confounders, even if controlling for such factors in the models did not appreciably change the results. Clarification on whether the root caries increment in the database shared is already adjusted for the number of surfaces or not. 	Authors provided the individual data requested. Permission of the data owner institution to perform analyses on individual data was also granted. EFSA conducted analysis on the individual data, but this was not included in the assessment because of difficulties in reproducing the caries endpoint as in the original study due to lack of full information considered in the original analysis (e.g. number of teeth at risk for root caries, subgingival calculus in one or more surfaces). However, the database was used to provide descriptive statistics on intakes for total sugars in g/d (per quartiles of E%) and SSBs.

D3MFT, decayed into dentine, missing and filled permanent teeth; DMFS: decayed, missing, filled surfaces; dmft, decayed missing filled primary teeth; DMFT, decayed missing filled permanent teeth; FFQ, food frequency questionnaire; SSBs, sugar-sweetened beverages.

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